REMARKS

Claims 1-20 are pending in the application. Claims 6 and 16 have been amended herein. Entry of the amendments and favorable reconsideration of the application is respectfully requested.

CLAIM OBJECTIONS

Claims 6 and 16 are objected to because of informalities contained therein. Specifically, the Examiner states that by using the term "the data stream" in each of the respective claims, it is not clear to which of the "at least two data streams" the applicant is referring. Applicants have amended each of claims 6 and 16 to remove the term "the data stream." Accordingly, Applicant respectfully requests withdrawal of the objection to claims 6 and 16.

REJECTION OF CLAIMS 1-2, 4-9, 11-12, AND 14-19 UNDER 35 USC §103(a)

Claims 1-2, 4-9, 11-12, and 14-19 have been rejected under 35 U.S.C. §103(a) as being unpatentable over *Suzuki* (US Patent No. 7,424,203), in view of *Saeijs et al.* (US Patent No. 7,376,151).

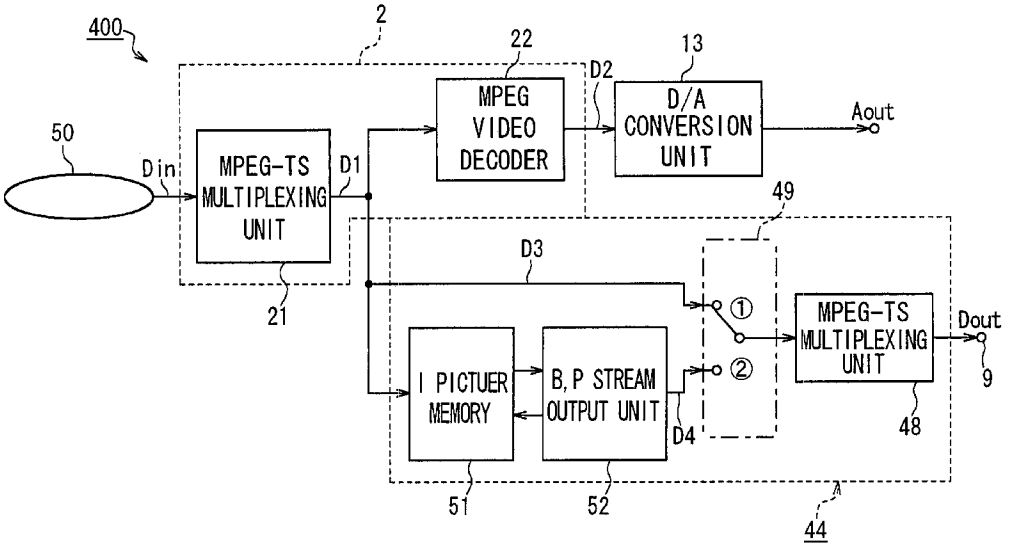
i. *Suzuki* does not teach a dummy packet processing section, as recited in claim 1 of the present invention

The Examiner contends that *Suzuki* discloses, *inter alia*, "data restructuring means (44) that interpolates B picture and P picture of fixed pattern having motion vector (0,0) of the difference value "0" between the I pictures extracted from picture memory (51), which reads on the claimed dummy packet processing section.

Suzuki is directed to a data reproduction transmission apparatus that includes both analog and digital signal processing equipment, both being capable of normal reproduction (i.e., regular playback) and special reproduction (i.e., static reproduction, fast forward reproduction, or fast backward reproduction). Figure 9 of *Suzuki*,

reproduced below, illustrates the fourth example of the data reproduction transmission apparatus to which the Examiner refers.

FIG. 9



The reproduction transmission apparatus 400 includes a decoding means 2, a D/A (digital to audio) conversion unit 13 for producing an analog signal Aout, and a data restructuring means 44 for producing a digital signal Dout.

Video information is obtained from the video information medium 50 and multiplexed by the MPEG-TS multiplexing unit 21 so as to output multiplexed code data D1. For digital output Dout, the multiplexed code data D1 is output to the digital restructuring means 44, which includes an I picture memory 51, a B,P stream output unit 52, a selector 49, and a MPEG-TS multiplexing unit 48. The selector 49 allows for a user to select either normal reproduction or special reproduction of the multiplexed code data D1.

If the user selects normal reproduction, the selector 49 is controlled so as to switch to the “1” position, wherein multiplexed code data D3, having the same arrangement as the multiplexed code data D1, is selected for input to the MPEG-TS multiplexing unit 48.

If the user selects a special reproduction, the selector 49 is controlled so as to switch to the "2" position, wherein code data D4, which is a restructured form of the multiplexed code data D1, is selected for input to the MPEG-TS multiplexing unit 48 (*Suzuki*, column 16, lines 25-29).

The multiplexed code data D1 is restructured during special reproduction via the I picture memory 51 and the B, P stream output unit 52. The I picture memory 51 is an image extraction means that extracts the intra picture (I picture) from the multiplexed code data D1 and temporarily stores the I picture.

The B, P stream output unit 52 then interpolates B picture and P picture having the motion vector (0,0) of the difference value "0" between the I pictures extracted by the I picture memory 51. Generally, both B picture and P picture have difference values (motion vectors) between corresponding pixel values of the I picutres, and are used for motion prediction (Suzuki, column 8, lines 15-30). The motion vector (0,0) of the difference value "0" would therefore be a prediction of no motion.

Hence, the I picture memory 51 and B and P stream output unit 52 are collectively used to restructure the MPEG video stream to produce one or more static images.

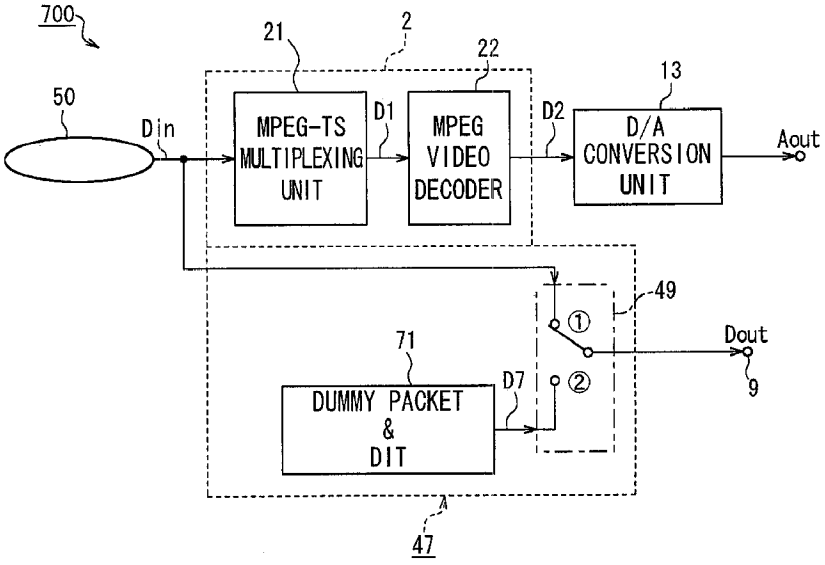
For example, when special reproduction is fast forward reproduction or fast backward reproduction, only the I pictures of the multiplexed code data D1 is read out. However, a temporal interval occurs before the reading of the next I picture. During the temporal interval, P and B pictures having all the motion vectors (0,0) of the difference value "0" is supplied in order to display a static image (*Suzuki*, column 17, lines 53-62).

Suzuki does not teach a dummy packet processing section which makes a plurality of dummy packets, each having a dummy identifier that is different from any of the identifiers of the packets, and which generates a playback stream, including the dummy packets at predetermined intervals, based on the data stream received, as

recited in claim 1 of the present invention. Instead, as described above, the I picture memory and the B,P stream output unit used during special reproduction merely restructures the multiplexed code data. The B pictures and P pictures are not dummy packets.

Suzuki does disclose the use of a dummy packet output unit 71 in a separate example of the reproduction transmission apparatus. However, the dummy packet output unit as taught in *Suzuki* is not the dummy packet processing section as recited in claim 1. Figure 22 of *Suzuki*, reproduced below, illustrates the use of the dummy packet output unit 71 in the data restructuring means 47.

F I G. 2 2



The dummy packet output unit 71 does not generate a playback stream, including the dummy packets at predetermined intervals, based on the data stream received. Instead, the operation of the dummy packet output unit 71 has no relation to the content of the code data Din, and does not receive an input of code data Din. It is the user that operates the selector 49 so as to select the output of the dummy packet output unit during special reproduction (*Suzuki*, column 24, lines 3-8). Upon the user operation of the selector 49 (i.e., the user pauses the reproduction), the selector switches from the multiplexed code data "1" to the dummy packet output unit 71 "2",

and a separate signal including a dummy packet is transmitted so the receiver of the digital signal can determine whether the transmission of the MPEG video stream has ended or not.

Accordingly, *Suzuki* does not teach the dummy packet processing section as recited in claim 1.

Furthermore, the Examiner admits that *Suzuki* does not teach a detecting section for detecting any of the dummy identifiers by scanning the identifiers of the respective packets of the playback stream and then outputting a first detection signal upon detecting the first code and a second detection signal upon detecting the second code, as recited in claim 1 of the present invention.

ii. Saeijs et al. does not cure the deficiencies of Suzuki

The Examiner contends that *Saeijs et al*. discloses a packet detector (84) which detects the receipt of each packet in the serial MPEG data stream applied to the input (11), generates a clock impulse for each packet detected, and the timing generator (110) then detects the time instants t_k of occurrence of the packets, which reads on the claimed detecting section.

Saeijs et al. is directed to a method of transmitting timing critical data wherein each transmission unit of the data stream is tagged with timing information before it is input, and said timing information is used at the output to recreate the proper data timing. Specifically, as may be seen in Figures 13a-13c of *Saeijs et al*., below, an original serial MPEG data stream (Figure 13a) is recorded wherein the intermediate packets are thrown away (Figure 13b), and a regenerated replica of the original serial MPEG data stream may later be produced using dummy packets (Figure 13c).

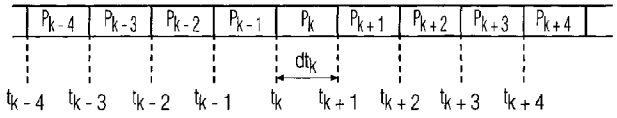


FIG. 13a

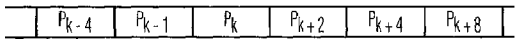


FIG. 13b

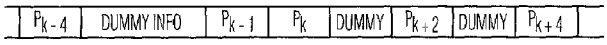


FIG. 13c

Figure 14 of Saeijs et al., reproduced below illustrates the use of the packet detector 84 as referred to by the Examiner.

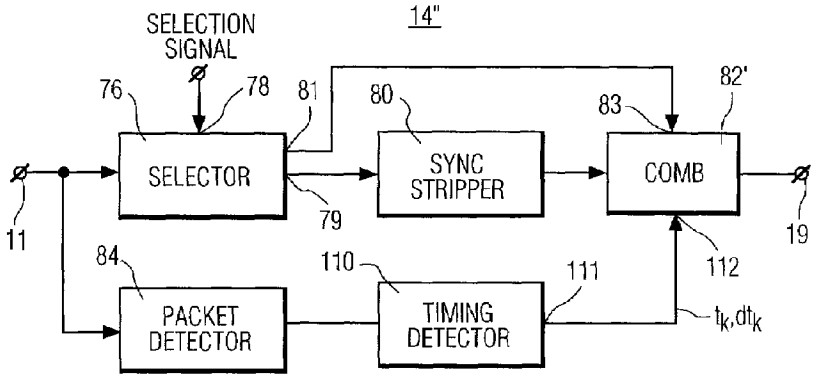


FIG. 14

The recording apparatus 14" receives the data stream (Figure 13a) and selects there from specific packets based on the selection signal 78. Other packets are thrown away at the selector. However, the packet detector 84 inputs and detects the receipt of every packet in the original serial MPEG data stream (Figure 13a) and generates a clock impulse for each packet detected. The timing detector 110 receives

each clock impulse and detects the time instants of occurrence of each of the packets. The selected packets are then combined with the time instants and corresponding time intervals supplied by the timing detector 110, thereby forming a reduced MPEG data stream (Figure 13b).

A replica (Figure 13c) of the original MPEG data stream in Figure 13a may subsequently be generated from the data stream as shown in Figure 13b, using the timing information generated by the packet detector 84 and timing detector 110. This is accomplished using an apparatus as shown in Figure 15 of *Saeijs et al*. The replica as shown in Figure 13c is generated by inserting blocks of dummy information to fill the gaps that once contained the deleted packets. Therefore, the replica has the same timing as the original serial MPEG data stream (Figure 13a).

Hence, the packet detector 84 of Saeijs et al. is nothing more than a timing counter that counts every packet that is contained in the original MPEG data stream in Figure 13a.

One having ordinary skill in the art would not have modified the teachings of *Suzuki* in view of *Saeijs et al*. so as purportedly to arrive at the claimed invention. The objective of *Suzuki* is to present a restructured transport stream at the output of the device in order that the receiver (e.g., digital TV) is able to decode and reproduce the special reproduction video data to the extent such data may be recognized in accordance with conventional data format. *Suzuki* is not concerned with the timing of the original code data. In fact, it is the object of the special reproduction of *Suzuki* to modify the playback timing of the original code data.

Furthermore, even if one having ordinary skill in the art would have combined the teachings of *Suzuki* and *Saeijs et al*., the claimed invention would not result. The packet detector of *Saeijs et al.* does not detect the presence of a dummy packet. Instead, the packet detector of *Saeijs et al*. detects timing information of every packet that is contained in the original MPEG data stream. Moreover, the original MPEG data stream that is input and detected by the packet detector 84 does not contain dummy

packets. It is only later, upon reproduction of the MPEG replica (Figure 13c) that dummy packets are generated.

In view of the above, Applicants respectfully submit that claim 1 is neither anticipated by nor rendered obvious in view of *Suzuki* and *Saeijs et al*. Similar arguments apply with regard to claim 11, which contains corresponding method limitations. Applicants further submit that claims 2, 4-9, 12, and 14-19, which depend from claim 1 and 11, respectively, and contain at least the claim features discussed above in relation to claim 1, are neither anticipated nor rendered obvious in view of *Suzuki* and *Saeijs et al*. Accordingly, withdrawal of the rejection of claims 1-2, 4-9, 11-12, and 14-19 under 35 U.S.C. §103(a) is respectfully requested.

REJECTION OF CLAIMS 3, 10, 13, AND 20 UNDER 35 USC §103(a)

Claims 3, 10, 13, and 20 have been rejected under 35 U.S.C. §103(a) as being unpatentable over *Suzuki*, in view of *Saeijs et al*., further in view of *Abelard et al*. (US Patent No. 6,823,121). Said claims depend from claims 1 and 11, respectively, and contain at least the claim features discussed above in relation to claim 1. Furthermore, *Abelard et al.* does not cure the deficiencies of *Suzuki* and *Saeijs et al*. Accordingly, withdrawal of the rejection of claims 3, 10, 13, and 20 under 35 U.S.C. §103(a) is respectfully requested.

CONCLUSION

Accordingly, all claims 1-20 are believed to be allowable and the application is believed to be in condition for allowance. A prompt action to such end is earnestly solicited.

Should the Examiner feel that a telephone interview would be helpful to facilitate favorable prosecution of the above-identified application, the Examiner is invited to contact the undersigned at the telephone number provided below.

Should a petition for an extension of time be necessary for the timely reply to the outstanding Office Action (or if such a petition has been made and an additional extension is necessary), petition is hereby made and the Commissioner is authorized to charge any fees (including additional claim fees) to Deposit Account No. 18-0988.

Respectfully submitted,

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DATE: February 24, 2009

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